

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

THE RELATIONSHIPS AND GEOGRAPHICAL DISTRIBUTION OF THE SPECIES AND RACES BELONGING TO THE GENUS *RHYNCHOCYCLUS*.

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The following brief synopsis of the species and subspecies of the genus *Rhynchocyclus* is the result of an examination of material in the Field Museum of Natural History, supplemented by specimens borrowed from other museums in this country, and represents the writer's present views on the valid forms of this group.

GENUS *Rhynchocyclus* Cabanis & Heine.

Rhynchocyclus Cabanis & Heine, Mus. Hein., ii, 1859, p. 56 (Type *Muscipeta flaviventris* Wied).

Rhynchocyclus sulphurescens sulphurescens (Spix).

Platyrrhynchus sulphurescens Spix, Aves. Bras., ii, 1825, p. 10, pl. 12, fig. I male.¹

Rhynchocyclus sulphurescens pallescens Hartert & Goodson, Novit. Zool., XXIV, 1917, p. 414 (Santa Cruz, Bolivia).²

Range: Southern Brazil (Minas Geraes; Rio de Janeiro; Parana; S. Paulo; southern and southwestern Matto Grosso; Santa Catharina); Paraguay (Sapucay; Puerto San Juan); Bolivia (Mapiri; Yaeniba; Rio Tapacani; Monte de Basilio, Dep. Santa Cruz); Argentina (Prov. Jujuy and Misiones).

Rhynchocyclus sulphurescens assimilis (Pelzeln).

Rhynchocyclus assimilis Pelzeln, Orn. Bras., 1869, pp. 110, 181 (Borba, Rio Madeira type locality).³

¹But not fig. 2 female, which is supposed to represent *Craspedoprion olivaceus olivaceus* Temm. (cf. Hellmayr, Abhandl. Ak. Wiss. München, XXII, 1906, p. 643).

²I can not distinguish specimens from Santa Cruz, Bolivia (*pallescens* Hartert & Goodson) from those from Sao Paulo and Santa Catharina, Brazil, although one Bolivian example is somewhat paler.

³According to Hellmayr (cf. Chapman, Bull. Amer. Mus. Nat. Hist., XXXVI, 1917, p. 435).

Rhynchocyclus scotius Oberholser, Proc. U. S. Nat. Mus., XXV, 1902, p. 63 (Brazil).

Range: Brazil (Borba to Rio Madeira; Manaos, Rio Negro; Upper Rio Roosevelt and Amazonian region; Itacoatiara; Rio Tocantins; Rio Tapajoz, etc., to Para);¹ southern Venezuela (Caura River and near Mt. Duida); British Guiana (Mazaruni River); S. E. Colombia (Florencia and Buena Vista);² Ecuador (Sarayacu and Balzar Mts.); eastern Peru (Zeberas and Chamicuros).

Rhynchocyclus sulphurescens berlepschi Hartert & Goodson.

Rhynchocyclus sulphurescens berlepschi Hartert & Goodson, Novit. Zool., XXIV, 1917, p. 415 (Caparo, Trinidad I., W. I.).

Range: Trinidad; coast of northeastern Venezuela?³

Very close to *R. s. assimilis*, but all Trinidad specimens I have seen appear to have the crown more olivaceous, less grayish, than in *assimilis*.

Rhynchocyclus sulphurescens cherriei Hartert & Goodson.

Rhynchocyclus sulphurescens cherriei Hartert & Goodson, Novit. Zool., XXIV, 1917, p. 414 (Cayenne).

Range: French Guiana; Dutch Guiana.

I am doubtful as to the validity of this form. I have not seen specimens from Cayenne, but Hartert & Goodson record it also from British Guiana and Caura River, Venezuela. I am unable to distinguish birds from British Guiana and Caura River, Venezuela, from examples from Itacoatiara, middle Amazon River, and Utinga, near Para, and am, therefore, forced either to not recognize the form as separable from *R. s. assimilis* or restrict its range provisionally to French Guiana and Dutch Guiana.

Rhynchocyclus sulphurescens exortivus Bangs.

Rhynchocyclus sulphurescens exortivus Bangs, Proc. Biol. Soc. Wash., XXI, 1908, p. 163 (La Concepcion, Sierra Nevada de Santa Marta, N. Colombia).

Range: Northern and northeastern Colombia (Santa Marta region and lower Magdalena River); northern Venezuela (Colon, Tachira; Orope and Encontrados, Zulia; Caracas).

R. s. exortivus Bangs differs from *R. s. assimilis* in having the back decidedly brighter (more greenish); crown more olivaceous and throat and breast decidedly more yellowish. (Type examined.)

Rhynchocyclus sulphurescens flavo-olivaceus (Lawrence).

Rhynchocyclus flavo-olivaceus Lawrence, Ann. Lyc. Nat. Hist. N. Y., VIII, 1863, p. 8 (Lion Hill, Panama).

Range: Panama.

¹Recorded by Sneath, Bol. Mus. Goeldi, VIII, 1914, p. 394. I have examined a specimen from Utinga, near Para, in the American Museum of Natural History.

²Not typical (*cf.* Chapman, Bull. Amer. Mus. Nat. Hist., XXXVI, 1917, p. 435).

³Cumaná and Puerto Cabello, Venezuela, were included by Hartert & Goodson in the range of this form. I have not seen specimens from Cumaná, but examples from the region of Puerto Cabello are certainly nearer *exortivus*.

***Rhynchocyclus cinereiceps cinereiceps* (Sclater).**

Cyclorhynchus cinereiceps Sclater, Ibis, 1859, p. 443 (Oaxaca, S. Mexico).

Range: Southern Mexico (in states of Vera Cruz; Oaxaca; Yucatan; Quintana Roo and Chiapas); Guatemala; Honduras; Nicaragua; Costa Rica and Panama.

***Rhynchocyclus cinereiceps asemus* (Bangs).¹**

Rhynchocyclus sulphurescens asemus Bangs, Proc. Biol. Soc. Wash., XXII, 1910, p. 73 (Pavas, W. Colombia).

Range: Western Colombia (Pavas; Dabeiba; Puerto Valdivia; Rio Frio; Miraflores; Cali and Jiminez).

***Rhynchocyclus peruvianus peruvianus* Taczanowski.²**

Rhynchocyclus peruvianus Taczanowski, P. Z. S. Lond., 1874, p. 537 (Ropaybamba, C. Peru).

Range: Central and northern Peru (except in extreme northwestern part).

***Rhynchocyclus peruvianus æquatorialis* Berlepsch & Taczanowski.³**

Rhynchocyclus peruvianus subsp. *æquatorialis* Berlepsch & Taczanowski, P. Z. S. Lond., 1883, p. 556 (Chimbo and Guayaquil, W. Ecuador).

Range: Western Ecuador and extreme northwestern Peru, near boundary line (Lechugal).

***Rhynchocyclus marginatus marginatus* Lawrence.**

Rhynchocyclus marginatus Lawrence, Proc. Acad. Nat. Sci. Phila., 1868 (1869), p. 429 (Lion Hill, Panama).

Range: Eastern Costa Rica (Carrillo; El Hogar); Panama; western Colombia (Puerto Valdivia; Barbacoas; Buena Vista; Narino).

¹*R. c. asemus* is similar to *R. c. cinereiceps* of Central America, but differs in having the chest more tinged with yellowish and in its larger size (average measurements of wing—*asemus* about 67 mm., *cinereiceps* 64½ mm.). It differs from *R. s. exortivus* of the Santa Marta region, etc., in its darker and grayer cap; back darker olive green; throat and chest grayer. The wing averages somewhat longer. (Type examined.) This form, to my mind, is clearly a representative of *cinereiceps* and not closely allied to *sulphurescens*. The type specimen is by far the largest of any specimens examined (wing 70 mm.), but two examples from Jiminez have the wing 67 mm. and 68 mm. Dr. Chapman, Bull. Amer. Mus. Nat. Hist., XXXVI, 1917, p. 434, calls attention to the smaller size of specimens examined from Dabeiba, Cali, Rio Frio and Miraflores, in which the wing measurements averaged 66.5 mm.

²*R. p. peruvianus* Taczanowski approaches *R. c. cinereiceps*, but size decidedly larger; back bright olive green; a blackish auricular spot. Type—wing 60; bill 18 mm. I have not seen this form.

³*R. p. æquatorialis* is similar to *R. p. peruvianus* from central Peru, but decidedly smaller and differs in having the back and edges of remiges brighter olive green; yellow area of lower belly more extensive. Type—wing 65; tail 60; bill 18. Hartert & Goodson, Novit. Zool., XXIV, 1917, p. 415, say they examined a specimen from western Ecuador and it differed from *R. c. cinereiceps* only in its slightly darker gray head and less extended gray throat, and that a Peruvian skin (no definite locality given) labelled *R. s. peruvianus* did not appear to differ from the Ecuadorian specimen. I have not seen a specimen of this form, but judging from the original description I suspect *æquatorialis* will be found to be a representative of *cinereiceps* and close to *asemus*.

Rhynchoicyclus marginatus flavotectus (Hartert).¹

Rhynchoicyclus megacephala flavotecta Hartert, Novit. Zool., IX, 1902, p. 608 (San Javier type locality, and Paramba, N. W. Ecuador).

Range: Western Ecuador (San Javier; Paramba; Esmeraldas; Guayaquil, etc.).

Rhynchoicyclus megacephalus (Swainson).

Tyrannula megacephala Swainson, Bds. Brazil & Mexico, 1841, p. 47, no locality given (Prov. Sao Paulo, S. Brazil).²

Range: Southern Brazil (Sao Paulo; Parana); southeastern Paraguay (Puerto Bertoni); extreme northeastern Argentina (Rio Siguendo; Alto Parana, Misiones).

Characters.—"Upper parts very dusky dull olive green, the feathers of sides of crown with dark centers, as a result of which two distinct blackish-brown stripes are formed, extending from the forehead to back of crown. Lores and narrow superciliary stripe olive-yellowish; sides of head olive-greenish, lined with yellowish. Lesser wing coverts olive green; the middle and greater coverts dark brown with broad reddish yellow ends, which form two distinct cross bands. Remiges dark brown; the primaries with reddish yellow outer borders (the color somewhat paler than the tips of the wing coverts). Rectrices dark brown, with olive-yellow-green outer borders. Throat and fore-neck dull olive-yellowish green; rest of under parts olive yellow. Bill dark horn brown; lower mandible with exception of tip whitish. Wing 65; tail 60; bill 15 mm."

"Another specimen from Matto Dendro, Sao Paulo, is somewhat lighter olive green above; the under parts brighter olive yellow; the fore-breast scarcely washed with olive-greenish, and size decidedly smaller. Wing 59; tail 53; bill 15. It is probably a female." (Free translation from Hellmayr, Verh. zool.-bot. Gesell. Wien, liii, 1903, p. 206.)

The specimens described above, collected by Natterer, are preserved in the Vienna Museum. They are believed by both Hellmayr and Berlepsch to be the form that Swainson's plate is intended to portray.

Rhynchoicyclus poliocephalus poliocephalus Taczanowski.³

Rhynchoicyclus poliocephalus Taczanowski, Orn. Perou, ii, 1884, p. 285 (Nauta, N. E. Peru).

¹*R. m. flavotectus* (Hartert) is similar to *R. m. marginatus*, but differs in its plain gray crown; more yellow throat and breast (throat grayish on chin only); edgings of wing coverts narrower. I have not seen this form, but have followed Chapman (Bull. Amer. Mus. Nat. Hist., XXXVI, 1917, p. 436, in text) in considering it a race of *marginatus*. It is given as a form of *megacephalus* by Hartert & Goodson and of *sulphurescens* by Berlepsch (Proc. IV Int. Orn. Congr. London, 1905 (1907), p. 482).

²Type locality Prov. Sao Paulo proposed by Hellmayr (Verh. zool.-bot. Gesell. Wien, liii, 1903, p. 206).

³Characters.—Cap slaty, mixed with olive green; back brighter green; under parts nearly uniform olive-yellow, somewhat paler and slightly tinged with greenish on the throat and fore-neck. Wing 52-55 mm.; tail 42-45 mm.

This group, *R. p. poliocephalus*, *R. p. sclateri* and *R. p. klagesi*, may be readily distinguished from representatives of *sulphurescens* by their smaller size (wing always less than 60). I have not seen specimens of typical *poliocephalus poliocephalus*.

Range: Northeastern Peru (Ucayali; Exberos; Pebas, Nauta; Upper Ucayali; Yurimaguas); southeastern Peru (Cosnipata); eastern Ecuador (Napo); northwestern Brazil (Teffe, upper Amazon).

***Rhynchocyclus poliocephalus sclateri* Hellmayr.**

Rhynchocyclus poliocephalus sclateri Hellmayr, Verh. zool.-bot. Gesell. Wien, liii, 1906, p. 207 (Barra de Rio Negro, N. Brazil Manaos).

Rhynchocyclus poliocephalus (nom. nud.) Pelzeln, Orn. Bras., 1869, p. 110 (Barra de Rio Negro; Maribitanas and Bahia).

Rhynchocyclus megecephalus (nec *Tyrannula megecephala* Swainson) Sclater, Cat. Bds. Brit. Mus., XIV, 1888, p. 170 (Para, Brazil; Demerara, Merume Mts. and Carimang, British Guiana).

Range: Northern Brazil (Rio Negro and Rio Madeira and eastward in Amazon region; Rio Tapajoz; Rio Tocantins; Rio Jamunda, etc., to Para); eastern Brazil (Bahia);¹ eastern Venezuela (Lower Orinoco and Caura River);² British Guiana; French Guiana; Dutch Guiana.

This form is similar to *R. p. poliocephalus* from Peru, but differs in its larger size and somewhat smaller bill; by its whitish gray, instead of olive yellowish throat; grayish fore-neck (only slightly washed with olive yellowish), and paler yellowish under parts. Wing (type ex. by Hellmayr) 57½; tail 53 mm. The average wing measurements of 4 males and 5 females from Oyapoc and Nana River, Cayenne, in the Carnegie Museum, males—wing 55; females—wing 54 mm.

***Rhynchocyclus poliocephalus klagesi* (Ridgway).**

Rhynchocyclus klagesi Ridgway, Proc. Biol. Soc. Wash., XIX, 1906, p. 115 (Maripa, Venezuela).

Range: Upper Orinoco River, Venezuela (Maripa and foot of Mt. Duida); S. E. Colombia (La Morelia and Florencia).³

This form is obviously closely related to *R. p. sclateri*, but differs in its brighter yellowish belly and in its yellowish-olive tinged breast and throat. Size about that of *R. p. sclateri*. The single specimen from the foot of Mt. Duida, S. Venezuela, has the crown much darker (dusky slate color) than any specimen I have seen of either *sclateri* or *klagesi*, but otherwise agrees with *klagesi*.

***Rhynchocyclus grisescens* Chubb.**

Rhynchocyclus grisescens Chubb, Ibis, 1910, p. 588 (Sapucay, Paraguay).

Range: Southeastern Paraguay (Sapucay).

¹Hellmayr (Novit. Zool., XVII, 1910, p. 298, footnote) has examined the specimen in the British Museum recorded by Sclater, Cat. Bds. Brit. Mus. XIV, 1888, p. 170, as specimens "a" "Brazil" under *megecephalus*, and learned that it came from Bahia and that it proves to be this form.

²According to Hellmayr (Novit. Zool., XVII, 1910, p. 298, footnote) specimens recorded by Berlepsch & Hartert from La Pricion, Caura River, Venezuela, as this form, prove to be a form of *sulphurescens*. If so, they are probably *assimilis*, which also occurs in that region.

³Specimens in American Museum of Natural History.

"Allied to *R. sulphurescens*, but differs in being olive grey above instead of green; the head somewhat darker and inclining to lead-colour; tail-feathers pale brown, edged with whitish; quills also pale brown, margined with olive-grey. The two bars on the wings, formed by the margins of the median and greater coverts, are white instead of yellow; the throat and chest olive-grey, not yellow; the middle of the abdomen whitish, in place of yellow; the under tail-coverts buff towards the ends; the under wing-coverts white instead of yellow. Bill black above, greyish white below; tarsi and feet bluish slate coloured; iris brown. Total length 5.2 inches; culmen 0.6; wing 2.55; tarsus 0.8." (Chubb *l. c.* orig. descr.) In the same paper Chubb records *R. sulphurescens sulphurescens* from the same locality.

Rhynchocyclus flaviventris flaviventris (Wied).

Muscipeta flaviventris Wied. Beitr. Naturg. Bras. (3), ii, 1831, p. 929 (Rivers Mucuri and Alcobaca, southern Bahia, Brazil).

Rhynchocyclus flaviventris aurulentus Todd, Proc. Biol. Soc. Wash., XXVI, 1913, p. 171 (Momotoco, Santa Marta, Colombia).

Range: Northern and eastern Colombia (Santa Marta; Lower Magdalena region; Cucuta; "Bogota" region); Venezuela (Puerto Cabello; Tocuyo; Cumana; Rio Aurare; Caicara and along the middle Orinoco River, etc.); Trinidad; Tobago; British Guiana; northern and eastern Brazil (Amazonian region from about the Rio Branco, eastward to Rio Tocantins; Rio Jamunda; Para; Jua and Quixada, Ceara, and southward to Rio Araguaya, Goyaz and Rio Mucuri, Bahia).

In this group *R. f. viridiceps* and *R. f. borbæ* appear to be well marked races, but I am unable to separate the Santa Marta bird (*aurulentus* Todd) from the typical form. There is apparently considerable individual variation (either seasonal or due to difference in age) in the coloration of the under parts and borders of wing coverts, and to a somewhat lesser degree the same may be said of the coloration of the upper parts. The brightest examples are from Ceara, although I can not distinguish them from some specimens from Santa Marta, and from both of these localities a few selected specimens are unquestionably brighter than any examples I have seen from Bahia. Most of the Bahia specimens are old skins and the single fresh skin is as brightly colored as most of the Santa Marta specimens. From the material before me the differences are slight and apparently not constant. Two specimens from the Rio Branco show a slight tendency towards *R. f. borbæ*, but are much nearer *R. f. flaviventris*.

I have examined 61 specimens of this form from the following localities: Colombia (Santa Marta region, Momotoco, Bonda, etc., 18; Lower Magdalena River and Cucuta 5); Venezuela (Rio Aurare 2; Cumana 1; Suapure, Maripa and La Union 9); Trinidad 6; Tobago 3; Brazil (Bahia 7; Rio Branco region 5; Quixada and Jua, Ceara 5).

Rhynchocyclus flaviventris viridiceps (Sclater & Salvin).

Rhynchocyclus viridiceps Sclater & Salvin, P. Z. S. Lond., 1873, p. 280 (Pebas, N. E. Peru).

Range: Northeastern Peru (Pebas);? central Peru¹ (La Merced; Chanchamayo); eastern Ecuador (Rio Napo); southern Colombia (Florencia).²

This well marked race differs from *R. f. flaviventris* in having the upper parts decidedly darker (more olive green and less yellowish green); lores yellowish olive (without rusty tinge); lesser and median wing coverts greenish like the back; throat and breast yellowish green, like the sides, becoming clearer yellow on middle of belly. Wing 56; tail 48 mm.³

This form is close to *R. f. borbæ* and resembles it in coloration of lores and wing coverts, but it differs in its slightly more greenish upper parts and decidedly more greenish throat and chest (not clear olive yellow as in *borbæ*).

***Rhynchocyclus flaviventris borbæ* Hellmayr.**

Rhynchocyclus flaviventer borbæ Hellmayr, Verh. zool.-bot. Gesell. Wien, liii, 1903, p. 208 (Borba, Rio Madeira, Brazil).

Range: Northwestern Brazil (Lower Rio Madeira; Borba; Marmellos⁴ and Monte Verde, Rio Purus).⁵

This form is similar to *R. f. viridiceps* from northeastern Peru, but differs in its clear olive yellowish throat and chest (not light yellowish green as in *viridiceps*).

¹According to Hellmayr (Novit. Zool., XVII, 1910, p. 296) two specimens from La Merced, central Peru (preserved in the Branicki Museum) are larger, and may prove to be a different form. Wing $60\frac{1}{2}$; tail $49\frac{1}{2}$ and wing $63\frac{1}{2}$; tail 53 mm.

²Chapman Bull. Amer. Mus. Nat. Hist., XXXVI, 1917, p. 436.

³Measurements from specimen from Florencia in the American Museum of Natural History. The measurements of the type, as given by Scater & Salvin (*l. c.*) are wing 2.2 in.; tail 1.7 in. I have not seen a specimen from Ecuador or Peru.

⁴Hellmayr, Novit. Zool., XVII, 1910, p. 295.

⁵Sneath, Bol. Mus. Goeldi, VIII, 1914, p. 369.